Claims 1-15, and 17-32 remain for consideration.

All claims pending specify that the method is performed using a cable network.

All claims pending specify that the cable network subscribers are served simultaneously in the same system that implements the new channel splitting technique for data rate enhancement. This means that some users, i.e. conventional data rate users, are connected between the send and receive locations.

Argument

In view of the status of the prosecution, i.e. the application being under final rejection, the arguments given below are aimed at the most evident deficiencies in the rejections of record. The overall positions recited in the last response are believed to retain merit, and, anticipating further proceedings in this prosecution, are not abandoned, nor are any positions conceded.

An argument made in applicants' last response is that the main reference describes wireless networks. Applicants' system relates to a cable network. The Office action addresses this argument by citing the patent of Chen. Chen describes a cable network.

The Office action concludes by indicating that applicants' arguments in the last response are moot in view of the Chen patent. However, applicants advanced other arguments that are unrelated to the issue of cable networks and the Chen patent. There was no response to these arguments in the final rejection. These

arguments include, inter alia, the absence of a logical basis for combining the Rasanen patent and the Robinett et al. patent, and the feature, in all claims pending, that the claimed system provides for different classes of service: a standard data rate service for conventional subscribers, and a high data rate service based on the split channel feature. Not only is there nothing in the references about this, but the Office action is also silent in this regard. The final rejection appears to address the amendment relating to the cable network connections, but not the amendment requiring connecting .... "a plurality of users ... between the transmit site and the receive site...."

Therefore the record as it stands is incomplete on issues central to the patentability of applicants' claims.

Arguments relating to these central issues are these.

First, the Robinett et al. patent is cited to show multiple data streams with different bit rates, and is cited in combination with the Rasanen patent. It is submitted that a primary weakness in this rejection is the lack of a convincing basis for combining the Rasanen and Robinett et al. patents. Other than the bare statement that it would have been obvious to one of ordinary skill in the art to combine these references the Office action gives no technical rationale. As the Examiner undoubtedly knows,

> "...rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts

> that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. See In re Mills, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Applicants submit that in the case of a combination rejection the factual basis should include a rationale for the combination. In the present situation, Robinett et al. are concerned with a distributed re-multiplexer for video systems. Neither Rasanen nor applicants are concerned with problems involving video transmission. Nor is there a distributed multiplexer evident in either of their systems. Thus the core of the Robinett et al. teachings has no apparent relevance to anything in the Rasanen patent.

Moreover, it is not clear that the passage cited in the Office action as showing multiple bit rates relates to multiple channels. It appears to describe multiple bit rates on different portions of one channel. It does not appear to describe the essence of applicants' claim, where a first channel is divided into multiple data streams and the bit rate of the first channel and the bit rates of the multiple channels are different. That is not at all evident from the passage cited from Robinett et al. So the combination of references does not teach the claimed

subject matter.

There appears to be no response to this argument in the final rejection.

Applicants presented another aspect of this argument. That was the observation that one skilled in the art with a goal of improving cable network site-to-site transmission would not expect to find help from a wireless technology. The emphasis here is on the site-to-site portion, or transmission portion, of the system, where the major claimed differences lie.

Applicants can find no response to this argument in the final rejection.

Another argument was presented in the last response, i.e.:

A successful modification to an existing cable network, one that is not only attractive from a business standpoint, and effective from a technology standpoint, must also be a modification that is allowed by the standards bodies. The system of claim 1 is specifically designed to be overlaid over an existing cable network, with accommodation for existing customers that use the conventional bit rate. No such problem or solution is addressed in the Rasanen patent. The passages cited in the Office action from the Rasanen patent to show serving multiple users refer to processing the signal after it is received at the receiving station. Therefore the transmission portion of the system of Rasanen does not require any accommodation for existing system needs. Thus the transmission portion can be designed, and is designed in the Rasanen case, wholly independent of an existing system, existing technology, and existing standards In applicants' system as

claimed, the transmission portion of the system is designed with an accommodation for existing needs. This feature is present in all pending claims, i.e. where existing users are accommodated BETWEEN the transmitter and receiver, i.e. in the transmission portion.

There appears to be no response to this argument in the final rejection.

The issue that *is* addressed in the final rejection is the one relating to the unobviousness of splitting channels to increase the system data rate in a cable network. That argument, and the amendment on which the argument is based, are addressed in the final rejection by adding, to the existing rejection, the Chen patent. The Chen patent is added because the Rasanen patent and the Robinett et al. patent are not cable network systems, while the system of Chen is a cable network system. Thus we now have a combination of three references.

The combination of Rasanen with Robinett et al. has already been questioned (but not answered). Applicants also have questions with the third element of the combination. Other than citing Chen as "related art", the final rejection is silent on a rationale for adding the Chen patent to the combination of Rasanen and Robinett et al. Without knowing anything of the Examiner's rationale for combining these references (it is certainly not obvious), it is difficult to present a cogent analysis of it, or a case for or against it. However, the following appears to be the case.

The Chen system is a cable network system. We have already established that the Rasanen system is not a cable system, so there is no basis for a

combination there. The essence of the Chen system is the use of an echo device for locating noise gaps in a cable network. The method uses test packets operating at a test frequency to identify the noise gaps. The Rasanen system appears to have nothing to do with locating noise parameters, does not mention an echo device, and does not mention the word "test" in any context. Thus what one system has to do with the other is a guess at best.

One may ask whether the Robinett et al. reference provides some basis for a connection. But the same is true of the Robinett et al. patent – it appears to have nothing to do with locating noise parameters, does not mention an echo device, and does not mention the word "test" in any context. Moreover, Robinett et al. do not mention noise except in this passage: "....noise associated with coupling asynchronous video feeds together", a context unrelated to anything in the Chen patent, the Rasanen patent, or applicants' specification.

In view of these remarks, reconsideration and allowance of claims 1-15, and 17-32 is requested.

In the event that the Examiner concludes that a telephone call would advance the prosecution of this application, the Examiner is invited and

encouraged to call the undersigned attorney at Area Code 757-258-9018.

Respectfully,

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